

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS:

1. (previously presented) An assembly comprising a piece to be held in a bore and a device in which the piece is inserted for holding the piece in the bore, wherein the device comprises:

a cylindrical sleeve constructed to be inserted into the bore and held therein by engagement of its outer surface with an inner surface of the bore;

and a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed in a same circumferential direction relative to radial planes of the sleeve, the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin, and the flexibility of the fins is

such that the fins can be readily deflected when engaged by an inserted piece.

2. (original) An assembly according to Claim 1, wherein the fins have longitudinal ends that face longitudinal ends of the sleeve, respectively, and wherein at least one of the longitudinal ends of the fins extends away from the respective longitudinal end of the sleeve and away from the inner surface of the sleeve.

3. (original) An assembly according to Claim 2, wherein each fin has trapezoidal longitudinal side surfaces.

4. (original) An assembly according to Claim 1, wherein the device is formed of molded plastic and further comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

5. (original) An assembly according to Claim 4, wherein the abutments are spaced inwardly from the longitudinal ends of the sleeve, and the sleeve has slots

aligned with the abutments to permit engagement of the ejector pins with the abutments.

6. (original) An assembly according to Claim 1, wherein the piece is inserted in the device and has a shank that engages tips of the fins and deflects the fins.

7. (original) An assembly according to Claim 6, wherein the piece is a bolt.

8. (original) An assembly according to Claim 1, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

9. (original) An assembly according to Claim 1, wherein the fins extend to the longitudinal ends of the sleeve.

10. (original) An assembly according to Claim 1, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an outer diameter that increases away from the respective longitudinal ends of the sleeve.

11. (original) An assembly according to Claim 10, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

12. (original) An assembly according to Claim 10, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

13. (original) An assembly according to Claim 1, wherein the longitudinal ends of the sleeve are flat.

14. (previously presented) An assembly comprising a piece to be held in a bore and a device in which the piece is inserted for holding the piece in the bore, wherein the device comprises:

a cylindrical sleeve;

and a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from

each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed relative to radial planes of the sleeve, the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece, and each fin is tapered by having at least one longitudinal end that extends away from a corresponding longitudinal end of the sleeve and away from the inner surface of the sleeve.

15. (original) An assembly according to Claim 14, wherein each fin has trapezoidal longitudinal side surfaces.

16. (original) An assembly according to Claim 14, wherein the fins are skewed in a same circumferential direction relative to radial planes of the sleeve and the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin.

17. (original) An assembly according to Claim 14, wherein the device is formed of molded plastic and further comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

18. (original) An assembly according to Claim 17, wherein the abutments are spaced inwardly from the longitudinal ends of the sleeve, and the sleeve has slots aligned with the abutments to permit engagement of the ejector pins with the abutments.

19. (original) An assembly according to Claim 14, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

20. (original) An assembly according to Claim 14, wherein the fins extend to the longitudinal ends of the sleeve.

21. (original) An assembly according to Claim 14, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an

outer diameter that increases away from the respective longitudinal ends.

22. (original) An assembly according to Claim 21, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

23. (original) An assembly according to Claim 21, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

24. (original) An assembly according to Claim 14, wherein the longitudinal ends of the sleeve are flat.

25. (original) An assembly according to Claim 14, wherein the piece is inserted in the device and has a shank that engages tips of the fins and deflects the fins.

26. (original) An assembly according to Claim 25, wherein the piece is a bolt.

27. (previously presented) A combination comprising a body having a bore therein, a piece-holding device inserted in the bore, and a piece inserted in and held by the piece-holding device, wherein the piece-holding device comprises:

a cylindrical sleeve held in the bore by engagement of its outer surface with an inner surface of the bore;

and a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips that engage an outer surface of the piece inserted in the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed in a same circumferential direction relative to radial planes of the sleeve, the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin, and the fins are deflected by engagement with the inserted piece.

28. (original) A combination according to Claim 27, wherein the fins have longitudinal ends that face longitudinal ends of the sleeve, respectively, and wherein at least one of the longitudinal ends of the fins extends away from the respective longitudinal end of the sleeve and away from the inner surface of the sleeve.

29. (original) A combination according to Claim 28, wherein each fin has trapezoidal longitudinal side surfaces.

30. (original) A combination according to Claim 27, wherein the device is formed of molded plastic and further comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

31. (original) A combination according to Claim 30, wherein the abutments are spaced inwardly from the longitudinal ends of the sleeve, and the sleeve has slots aligned with the abutments to permit engagement of the ejector pins with the abutments.

32. (original) A combination according to Claim 27, wherein the piece has a shank that engages tips of the fins and deflects the fins.

33. (original) A combination according to Claim 32, wherein the piece is a bolt.

34. (original) A combination according to Claim 27, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

35. (original) A combination according to Claim 27, wherein the fins extend to the longitudinal ends of the sleeve.

36. (original) A combination according to Claim 27, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an outer diameter that increases away from the respective longitudinal ends of the sleeve.

37. (original) A combination according to Claim 36, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end

portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

38. (original) A combination according to Claim 36, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

39. (original) A combination according to Claim 27, wherein the longitudinal ends of the sleeve are flat.

40. (previously presented) A combination comprising a body having a bore therein, a piece-holding device inserted in the bore, and a piece inserted in and held by the piece-holding device, wherein the piece-holding device comprises:

a cylindrical sleeve;

and a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips

disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed relative to radial planes of the sleeve, the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece, and each fin is tapered by having at least one longitudinal end that extends away from a corresponding longitudinal end of the sleeve and away from the inner surface of the sleeve.

41. (original) A combination according to Claim 40, wherein each fin has trapezoidal longitudinal side surfaces.

42. (original) A combination according to Claim 40, wherein the fins are skewed in a same circumferential direction relative to radial planes of the sleeve and the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin.

43. (original) A combination according to Claim 40, wherein the device is formed of molded plastic and further

comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

44. (original) A combination according to Claim 43, wherein the abutments are spaced inwardly from the longitudinal ends of the sleeve, and the sleeve has slots aligned with the abutments to permit engagement of the ejector pins with the abutments.

45. (original) A combination according to Claim 40, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

46. (original) A combination according to Claim 40, wherein the fins extend to the longitudinal ends of the sleeve.

47. (original) A combination according to Claim 40, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an outer diameter that increases away from the respective longitudinal ends.

48. (original) A combination according to Claim 47, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

49. (original) A combination according to Claim 47, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

50. (original) A combination according to Claim 40, wherein the longitudinal ends of the sleeve are flat.

51. (original) A combination according to Claim 40, wherein the piece is a bolt.

52. (original) A method of holding a piece in a bore of a body, comprising:

providing a piece-holding device having a cylindrical sleeve constructed to be inserted into the bore and held therein by engagement of its outer surface with an inner

surface of the bore and having a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed in a same circumferential direction relative to radial planes of the sleeve, the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin, and the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece;

inserting the piece-holding device in the bore with its outer surface pressed into engagement with an inner surface of the bore; and

inserting the piece in the sleeve of the piece-holding device with the outer surface of the piece engaging tips of the fins and deflecting the fins.

53. (original) A method according to Claim 52, wherein the piece holding device is inserted in the bore and then the piece is inserted in the device.

54. (original) A method according to Claim 52, wherein the piece is inserted in the piece-holding device and then the device and the piece are inserted in the bore.

55. (original) A method according to Claim 52, wherein the fins have longitudinal ends that face longitudinal ends of the sleeve, respectively, and wherein at least one of the longitudinal ends of the fins extends away from the respective longitudinal end of the sleeve and away from the inner surface of the sleeve.

56. (original) A method according to Claim 55, wherein each fin has trapezoidal longitudinal side surfaces.

57. (original) A method according to Claim 52, wherein the device is formed of molded plastic and further comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

58. (original) A method according to Claim 57, wherein the abutments are spaced inwardly from the

longitudinal ends of the sleeve, and the sleeve has slots aligned with the abutments to permit engagement of the ejector pins with the abutments.

59. (original) A method according to Claim 52, wherein the piece is a bolt.

60. (original) A method according to Claim 52, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

61. (original) A method according to Claim 52, wherein the fins extend to the longitudinal ends of the sleeve.

62. (original) A method according to Claim 52, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an outer diameter that increases away from the respective longitudinal ends of the sleeve.

63. (original) A method according to Claim 62, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end

portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

64. (original) A method according to Claim 62, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

65. (original) A method according to Claim 1, wherein the longitudinal ends of the sleeve are flat.

66. (original) A method of holding a piece in a bore of a body, comprising:

providing a piece-holding device having a cylindrical sleeve constructed to be inserted into the bore and held therein by engagement of its outer surface with an inner surface of the bore and having a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed relative to radial planes of the sleeve, the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece, and each fin is tapered by having at least one longitudinal end that extends away from a corresponding longitudinal end of the sleeve and away from the inner surface of the sleeve;

inserting the piece-holding device in the bore with its outer surface pressed into engagement with an inner surface of the bore; and

inserting the piece in the sleeve of the piece-holding device with the outer surface of the piece engaging tips of the fins and deflecting the fins.

67. (original) A method according to Claim 66, wherein each fin has trapezoidal longitudinal side surfaces.

68. (original) A method according to Claim 66, wherein the fins are skewed in a same circumferential direction relative to radial planes of the sleeve and the dimension of each fin along the direction of its inward

projection is substantially greater than the thickness of the fin.

69. (original) A method according to Claim 66, wherein the device is formed of molded plastic and further comprises a plurality of abutments projecting inwardly from the inner surface of the sleeve for engagement with ejector pins of molding apparatus.

70. (original) A method according to Claim 69, wherein the abutments are spaced inwardly from the longitudinal ends of the sleeve, and the sleeve has slots aligned with the abutments to permit engagement of the ejector pins with the abutments.

71. (original) A method according to Claim 66, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve.

72. (original) A method according to Claim 66, wherein the fins extend to the longitudinal ends of the sleeve.

73. (original) A method according to Claim 66, wherein end portions of the sleeve adjacent to the longitudinal ends of the sleeve, respectively, have an outer diameter that increases away from the respective longitudinal ends.

74. (original) A method according to Claim 73, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have a substantially uniform inner diameter between the respective longitudinal ends of the sleeve and the fins.

75. (original) A method according to Claim 73, wherein the longitudinal ends of the fins are spaced from the respective longitudinal ends of the sleeve and said end portions have an inner diameter that increases between the respective longitudinal ends of the sleeve and the fins.

76. (original) A method according to Claim 66, wherein the longitudinal ends of the sleeve are flat.

77. (original) A method according to Claim 66, wherein the piece is a bolt.

78. (original) A method according to Claim 66, wherein the piece holding device is inserted in the bore and then the piece is inserted in the device.

79. (original) A method according to Claim 66, wherein the piece is inserted in the piece-holding device and then the device and the piece are inserted in the bore.

80. (new) A method of joining a first workpiece having a bore therethrough to a second workpiece having a bore, comprising:

providing a piece-holding device having a cylindrical sleeve constructed to be inserted into the bore of the first workpiece and held therein by engagement of its outer surface with an inner surface of the bore of the first workpiece and having a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed in a

same circumferential direction relative to radial planes of the sleeve, the dimension of each fin along the direction of its inward projection is substantially greater than the thickness of the fin, and the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece;

inserting the piece-holding device in the bore of the first workpiece with its outer surface pressed into engagement with an inner surface of the bore of the first workpiece;

inserting the piece in the sleeve of the piece-holding device and through the bore of the first workpiece, with the outer surface of the piece engaging tips of the fins and deflecting the fins;

aligning the bore of the second workpiece with an end of the piece beyond the bore of the first workpiece; and

fixing the end of the piece in the bore of the second workpiece.

81. (new) A method according to Claim 80, wherein the piece holding device is inserted in the bore in the first workpiece and then the piece is inserted in the device.

82. (new) A method according to Claim 80, wherein the piece is inserted in the piece-holding device and then the device and the piece are inserted in the bore of the first workpiece.

83. (new) A method according to Claim 80, wherein the piece is a bolt, and the bolt and the bore in the second workpiece have complementary threads by which the bolt is fixed in the bore of the second workpiece.

84. (new) A method of joining a first workpiece having a bore therethrough to a second workpiece having a bore, comprising:

providing a piece-holding device having a cylindrical sleeve constructed to be inserted into the bore in the first workpiece and held therein by engagement of its outer surface with an inner surface of the bore in the first workpiece and having a series of fins extending longitudinally of an inner surface of the sleeve and projecting inwardly from the inner surface of the sleeve, the fins being spaced from each other circumferentially of the sleeve with tips disposed to engage an outer surface of a piece inserted into the sleeve,

wherein the sleeve and the fins are integrally formed of resilient flexible plastic, the fins are skewed relative to radial planes of the sleeve, the flexibility of the fins is such that the fins can be readily deflected when engaged by an inserted piece, and each fin is tapered by having at least one longitudinal end that extends away from a corresponding longitudinal end of the sleeve and away from the inner surface of the sleeve;

inserting the piece-holding device in the bore of the first workpiece with its outer surface pressed into engagement with an inner surface of the bore of the first workpiece;

inserting the piece in the sleeve of the piece-holding device and through the bore of the first workpiece, with the outer surface of the piece engaging tips of the fins and deflecting the fins;

aligning the bore of the second workpiece with an end of the piece beyond the bore of the first workpiece; and

fixing the end of the piece in the bore of the second workpiece.

85. (new) A method according to Claim 84, wherein the piece holding device is inserted in the bore in the

first workpiece and then the piece is inserted in the device.

86. (new) A method according to Claim 84, wherein the piece is inserted in the piece-holding device and then the device and the piece are inserted in the bore of the first workpiece.

87. A method according to Claim 84, wherein the piece is a bolt, and the bolt and the bore in the second workpiece have complementary threads by which the bolt is fixed in the bore of the second workpiece.